BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Estimate Cost Rs. 20000000.00

Name of Work: Detailed Estimate for the work of Improvements to roads at Maruthinagara 1st main and cross roads in kempegowda ward no -01 of yelahanka Sub division.

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications. MORTH Specification No.301 Page No.143. Item No.19.14	cum							
	for CC road								
	venkatappa layout main road		1	255.00	4.50	0.20	229.50		
	NDRF road		1	250.00	3.70	0.20	185.00		
	venkatappa layout 1st cross road		1	18.00	3.50	0.20	12.60		
	venkatappa layout2nd cross road		1	18.00	3.50	0.20	12.60		
	venkatappa layout3rd cross road		1	18.00	3.50	0.20	12.60		
	for road								
	bad reaches maruthinagara 1st main road		1	3.50	2.50	0.30	2.63		
			1	2.00	2.50	0.30	1.50		
			1	3.20	1.50	0.30	1.44		
			4	3.80	1.50	0.30	6.84		
			1	5.20	3.60	0.30	5.62		
			1	3.80	2.90	0.30	3.31		
			1	15.00	1.20	0.30	5.40		
			1	3.60	2.20	0.30	2.38		
			1	15.00	1.80	0.30	8.10		
			1	8.00	3.50	0.30	8.40		
			1	9.00	3.20	0.30	8.64		
			1	16.00	1.50	0.30	7.20		
	bhuvana college road		1	12.00	1.50	0.30	5.40		
			1	16.00	3.90	0.30	18.72		
			1	4.00	4.00	0.30	4.80		
			1	9.90	1.20	0.30	3.56		
	MB bakery road		1	15.00	1.80	0.30	8.10		
			1	8.00	3.50	0.30	8.40		
			1	10.00	3.20	0.30	9.60		
			1	10.00	3.80	0.30	11.40		
			1	12.00	4.20	0.30	15.12		
			1	8.00	1.50	0.30	3.60		
	24th cross road		1	8.00	3.50	0.30	8.40		
			1	9.00	3.80	0.30	10.26		
							621.11	**125.59**	**78005.20**
	Basic Rate	41.00							
	Area Weightage 6%	2.46							
	Grand Total	43.46							
	Loading and unloading + Basic Rate for Haulage upto 8.00 k.m =(1.28 X 2.50 X 8)+ 57	77.48							
	Area Weightage 6%	4.65							
		125.59							

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Estimate Cost Rs. 20000000.00

Name of Work: Detailed Estimate for the work of Improvements to roads at Maruthinagara 1st main and cross roads in kempegowda ward no -01 of yelahanka Sub division.

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
1	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications. MORTH Specification No.301 Page No.143. Item No.19.14	cum							
	for CC road								
	venkatappa layout main road		1	255.00	4.50	0.20	229.50		
	NDRF road		1	250.00	3.70	0.20	185.00		
	venkatappa layout 1st cross road		1	18.00	3.50	0.20	12.60		
	venkatappa layout2nd cross road		1	18.00	3.50	0.20	12.60		
	venkatappa layout3rd cross road		1	18.00	3.50	0.20	12.60		
	for road								
	bad reaches maruthinagara 1st main road		1	3.50	2.50	0.30	2.63		
			1	2.00	2.50	0.30	1.50		
			1	3.20	1.50	0.30	1.44		
			4	3.80	1.50	0.30	6.84		
			1	5.20	3.60	0.30	5.62		
			1	3.80	2.90	0.30	3.31		
			1	15.00	1.20	0.30	5.40		
			1	3.60	2.20	0.30	2.38		
			1	15.00	1.80	0.30	8.10		
			1	8.00	3.50	0.30	8.40		
			1	9.00	3.20	0.30	8.64		
			1	16.00	1.50	0.30	7.20		
	bhuvana college road		1	12.00	1.50	0.30	5.40		
			1	16.00	3.90	0.30	18.72		
			1	4.00	4.00	0.30	4.80		
			1	9.90	1.20	0.30	3.56		
	MB bakery road		1	15.00	1.80	0.30	8.10		
			1	8.00	3.50	0.30	8.40		
			1	10.00	3.20	0.30	9.60		
			1	10.00	3.80	0.30	11.40		
			1	12.00	4.20	0.30	15.12		
			1	8.00	1.50	0.30	3.60		
	24th cross road		1	8.00	3.50	0.30	8.40		
			1	9.00	3.80	0.30	10.26		
							621.11	**125.59**	**78005.20**
	Basic Rate	41.00							
	Area Weightage 6%	2.46							
	Grand Total	43.46							
	Loading and unloading + Basic Rate for Haulage upto 8.00 k.m =(1.28 X 2.50 X 8)+ 57	77.48							
	Area Weightage 6%	4.65							
		125.59							

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
2	KSRB 2-2.1 : Earthwork excavation by manual means for foundation of buildings, culverts, water supply and sanitary lines and electrical conduits etc, either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. including breaking of clods complete as per specifications. No. KBS 2.1 (a) I 2.3.5 page no 6	cum							
	for rcc drain								
	Bhuvan college road		1	40.00	1.00	1.00	40.00		
	24th cross		1	295.00	1.00	1.00	295.00		
	venkatappa layout 1st cross road		1	18.00	1.00	1.00	18.00		
	venkatappa layout2nd cross road		1	18.00	1.00	1.00	18.00		
	venkatappa layout3rd cross road		1	18.00	1.00	1.00	18.00		
	for culverts		1	6.00	1.65	1.20	11.88		
	24th cross road		1	7.00	1.65	1.20	13.86		
	25th cross road		1	6.00	1.65	1.20	11.88		
	17th cross road		1	6.00	1.65	1.20	11.88		
	15th cross road		1	7.00	1.65	1.20	13.86		
	10th A cross road		1	5.00	1.65	1.20	9.90		
	5th cross road		1	5.50	1.65	1.20	10.89		
	24th 3rd cross		1	7.00	1.65	1.20	13.86		
							487.01	399.07	194351.08
	Basic Rate	299.00							
	Area Weightage 6%	17.94							
	Grand Total	316.94							
	Loading and unloading + Basic Rate for Haulage upto 8.00 k.m =(1.28 X 2.50 X 8)+ 57	77.48							
	Area Weightage 6%	4.65							
		399.07							
3	KSRRB M300-19. Removal of unserviceable soil including excavation, loading and disposal but excluding replacement by suitable soil which shall be paid separately as per clause 300.5 complete as per sepecification .MORTH Specification NO.301KBS Page No.144 Item No.19.2	cum							
	Desilting of existing drains								
	bhuvan college road		1	145.00	0.60	0.45	39.15		
	venkatappa layout main road		1	250.00	0.60	0.45	67.50		
	MB bakery road		2	250.00	0.60	0.45	135.00		
	6th Cross 1st Main		1	230.00	0.60	0.45	62.10		
							303.75	36.04	10947.15
	Basic Rate	34.00							
	Area Weightage 6%	2.04							
	Grand Total	36.04							

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Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
4	**KSRB 4-1.7 : Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 20mm and down size graded granite metal coarse aggregates @0.69 cum** and fine aggregtes @ 0.56cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 Page No.13 Item No.4.7	cum							
	for rcc drain near Bhuvana college		1	40.00	1.00	0.15	6.00		
	24th cross		1	295.00	1.00	0.15	44.25		
	venkatappa layout 1st cross road		1	18.00	1.00	0.15	2.70		
	venkatappa layout2nd cross road		1	18.00	1.00	0.15	2.70		
	venkatappa layout3rd cross road		1	18.00	1.00	0.15	2.70		
	for culverts		1	6.00	1.50	0.15	1.35		
	24th cross road		1	7.00	1.50	0.15	1.58		
	25th cross road		1	6.00	1.50	0.15	1.35		
	17th cross road		1	6.00	1.50	0.15	1.35		
	15th cross road		1	7.00	1.50	0.15	1.58		
	10th A cross road		1	5.00	1.50	0.15	1.13		
	5th cross road		1	5.50	1.50	0.15	1.24		
	24th 3rd cross		1	7.00	1.50	0.15	1.58		
	PCC for Kerbs								
	MB Bakery road		2	255.00	0.17	0.10	1.35		
	24th cross		2	100.00	0.17	0.10	3.30		
	Bhuvan college road		2	185.00	0.17	0.10	6.11		
	6th Cross 1st Main		1	230.00	0.17	0.10	3.91		
							84.15	**5627.54**	**473557.49**
	Basic Rate	5309.00							
	Area Weightage 6%	318.54							
	Grand Total	5627.54							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
5	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specifications. Page No.270. Item No.37.59.1	cum							
	for bed								
	for rcc drain near Bhuvana college		1	40.00	0.90	0.15	5.40		
	24th cross		1	295.00	0.90	0.15	39.83		
	venkatappa layout 1st cross road		1	18.00	0.90	0.15	2.43		
	venkatappa layout2nd cross road		1	18.00	0.90	0.15	2.43		
	venkatappa layout3rd cross road		1	18.00	0.90	0.15	2.43		
	for culverts		1	6.00	1.20	0.25	1.80		
	24th cross road		1	7.00	1.20	0.25	2.10		
	25th cross road		1	6.00	1.20	0.25	1.80		
	17th cross road		1	6.00	1.20	0.25	1.80		
	15th cross road		1	7.00	1.20	0.25	2.10		
	10th A cross road		1	5.00	1.20	0.25	1.50		
	5th cross road		1	5.50	1.20	0.25	1.65		
	24th 3rd cross		1	7.00	1.20	0.25	2.10		
	for side walls								
	for rcc drain near Bhuvana college		2	40.00	0.15	0.75	9.00		
	24th cross		2	295.00	0.15	0.75	66.38		
	venkatappa layout 1st cross road		2	18.00	0.15	0.75	4.05		
	venkatappa layout2nd cross road		2	18.00	0.15	0.75	4.05		
	venkatappa layout3rd cross road		2	18.00	0.15	0.75	4.05		
	for culverts		2	6.00	0.23	0.90	2.48		
	24th cross road		2	7.00	0.23	0.90	2.90		
	25th cross road		2	6.00	0.23	0.90	2.48		
	17th cross road		2	6.00	0.23	0.90	2.48		
	15th cross road		2	7.00	0.23	0.90	2.90		
	10th A cross road		2	5.00	0.23	0.90	2.07		
	5th cross road		2	5.50	0.23	0.90	2.28		
	24th 3rd cross		2	7.00	0.23	0.90	2.90		
							175.38	**7273.72**	**1275665.01**
	Basic Rate	6862.00							
	Area Weightage 6%	411.72							
	Grand Total	7273.72							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
6	KSRRB M 2200-6 Providing **T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending,** hooking, placing in position, lapping and or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. MORTH Specification No 1600 & 2200 TMT Bars Fe 500 Page No 229 Item No 28.8.2 SR 2018-19	Tn							
	for RCC drain 60 kg/cum		0.060	**140.04**			8.40		
	for RCC culvert 90 kg/cum		0.090	**35.34**			3.18		
				175.38			**11.58**	**72326.98**	**837546.4284**
	Basic Rate	68233.00							
	Area Weightage 6%	4093.98							
	Grand Total	72326.98							
7	**Removing & Refixing of stone slabs of drains and pointing in C.M (1:3) page no-27. l. no-5.33**	**Sqm**							
	bhuvan college road		1	145.00	0.90		130.50		
	venkatappa layout main road		1	250.00	0.90		225.00		
	MB bakery road		2	250.00	0.90		450.00		
	6th Cross 1st Main		1	230.00	0.90		207.00		
							1012.50	**111.30**	**112691.25**
	Basic Rate	**105.00**							
	Area Weightage 6%	6.30							
	Grand Total	111.30							
8	**Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and** Finishing cutting , including form work, cost of all materials, labour,hire charges of chinery,loading ,unloading ,lead and lift, transportation etc ,copmplete. (Data Rate)	**Sqm**							
	for rcc drain near Bhuvana college		1	40.00	0.90		36.00		
	24th cross		1	295.00	0.90		265.50		
	venkatappa layout 1st cross road		1	18.00	0.90		16.20		
	venkatappa layout2nd cross road		1	18.00	0.90		16.20		
	venkatappa layout3rd cross road		1	18.00	0.90		16.20		
							350.10		
	missing slabs								
	MB bakery road		2	250.00	0.90		450.00		
	6th Cross 1st Main		1	230.00	0.90		207.00		
							657.00		
	consider 40% of missing slabs						**262.80**		
							612.90	**2337.00**	**1432347.30**
	Date Rate	**2337.00**							

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Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
9	**Providing and Fixing pre cast covering Slab 250mm thick made out of CC 1:2:4** and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of all materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)	Sqm							
	for culverts		1	6.00	1.20		7.20		
	24th cross road		1	7.00	1.20		8.40		
	25th cross road		1	6.00	1.20		7.20		
	17th cross road		1	6.00	1.20		7.20		
	15th cross road		1	7.00	1.20		8.40		
	10th A cross road		1	5.00	1.20		6.00		
	5th cross road		1	5.50	1.20		6.60		
	24th 3rd cross		1	7.00	1.20		8.40		
							59.40	**5418.00**	**321829.20**
	Date Rate	**5418.00**							
10	**Removing and resetting of kerb stones** Page No.270. Item No.37.57	Nos							
	Maruthinagara 1st main road		2	1165.00			2330.00		
	50% avilable						1118.40		
	MB Bakery road		2	255.00			510.00		
	30% availbale						153.00		
					0.45		1271.40		
							2825.33	**104.94**	**296490.13**
	Basic Rate	**99.00**							
	Area Weightage 6%	5.94							
	Grand Total	104.94							
11	**Providing and fixing pre cast solid cement concrete kerb stones made out of C.C. 1:2:4 with top and bottom width 114** and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete. Page No.27. Item No.5.30	Nos							
	(remaining qty) Missing kerb stones at maruthinagar 1st main road						1211.60		
	MB Bakery road						357.00		
	24th cross		2	100.00			200.00		
	Bhuvan college road		2	185.00			370.00		
							2138.60		
					0.45		4752.44		
							4752.44	**432.48**	**2055335.25**
	Basic Rate	408.00							
	Area Weightage 6%	24.48							
	Grand Total	432.48							

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Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
12	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 Page No.180. Item No.24.1	sqm							
	maruthinagar 1st main road		2	1165.00	0.45		1048.50		
	24th cross		2	100.00	0.45		90.00		
	MB bakeryroad		2	255.00	0.45		229.50		
	Bhuvan collage road		2	185.00	0.45		166.50		
							1534.50	**84.80**	**130125.60**
	Basic Rate	80.00							
	Area Weightage 6%	4.80							
	Grand Total	84.80							
	for CC road								
13	KSRRB M800-1. Construction of dry lean cement concrete mix CC 1:5:10 with OPC cement @160Kgs, with 23mm and down size graded granite metal coarse aggregate at 0.86cum and fine aggregates @ 0.58cum Sub- base over a prepared sub-grade with (coarse and fine aggregate conforming to IS: 383) aggregate cement ratio not to exceed 15:1. Aggregate gradation after blending to be as per Table 800-1, cement content not to be less than 160 kg/ cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications. MORTH Specification No. 601 of MORTH V Revision and IS 456 Table-5 22.1.1 -do- with OPC at 150 kg/cum and coarse aggregate 0.86cum, fine aggregate 0.58cum using Concrete Batch mix Plant at 75 cum/hr capacity with Slip form paver with electronic sensor Page No.174. Item No.22.1.1	Cum							
	for CC road								
	venkatappa layout main road		1	255.00	4.50	0.15	172.13		
	NDRF road		1	250.00	3.70	0.15	138.75		
	venkatappa layout 1st cross road		1	18.00	3.50	0.15	9.45		
	venkatappa layout2nd cross road		1	18.00	3.50	0.15	9.45		
	venkatappa layout3rd cross road		1	18.00	3.50	0.15	9.45		
							339.23	**3800.10**	**1289107.92**
	Basic Rate	3585.00							
	Area Weightage 6%	215.10							
	Grand Total	3800.10							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
14	Constructing un-reinforced, plain cement concrete for pavements using Grade concrete M30 over a prepared base with OPC coarse aggregate at 0.69 cum, fine aggregates at 0.46 cum,Coarse and fine aggregate conforming to IS 383-2016, with Superplasitizer at 3 lts conforming to IS 9103-2006, mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expension, construction and longitudinal joints, including groove cutting charges, joint filler, seperation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixcures as approved, curing compound, finishing to lines and grades, textured with texturing machine, and curing including cost of all materials, labour,hire charges of machineries,all lead & lift charges etc., complete as per specifications. do- with OPC at 360 kg/cum and coarse aggregate 0.69cum, fine aggregate 0.46cum. Page No.176. Item No.22.6.1	Cum							
	for CC road								
	venkatappa layout main road		1	255.00	4.50	0.150	172.13		
	NDRF road		1	250.00	3.70	0.150	138.75		
	venkatappa layout 1st cross road		1	18.00	3.50	0.15	9.45		
	venkatappa layout2nd cross road		1	18.00	3.50	0.15	9.45		
	venkatappa layout3rd cross road		1	18.00	3.50	0.15	9.45		
							339.23	**5210.96**	**1767713.96**
	Basic Rate	4916.00							
	Area Weightage 6%	294.96							
	Grand Total	5210.96							
15	**Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing** coarse graded crushed stone aggregates of granite/trap/basalt material, mixing by mix in place method byrotavator at OMC, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications. Clause 401 of MORTH V Revision. Page No.153, Item No.20.6	**cum**							
	bad reaches maruthinagara 1st main road		1	3.50	2.50	0.15	1.31		
			1	2.00	2.50	0.15	0.75		
			1	3.20	1.50	0.15	0.72		
			4	3.80	1.50	0.15	3.42		
			1	5.20	3.60	0.15	2.81		
			1	3.80	2.90	0.15	1.65		
			1	15.00	1.20	0.15	2.70		
			1	3.80	2.20	0.15	1.19		
			1	15.00	1.80	0.15	4.05		

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Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
			1	8.00	3.50	0.15	4.20		
			1	9.00	3.20	0.15	4.32		
			1	6.00	3.80	0.15	3.42		
			1	6.60	4.20	0.15	4.16		
			1	16.00	1.50	0.15	3.60		
			1	12.00	1.50	0.15	2.70		
	bhuvana college road		1	16.00	3.90	0.15	9.36		
			1	4.00	4.00	0.15	2.40		
			1	9.90	1.20	0.15	1.78		
			1	15.00	1.80	0.15	4.05		
	MB bakery road		1	8.00	3.50	0.15	4.20		
			1	10.00	3.20	0.15	4.80		
			1	10.00	3.80	0.15	5.70		
			1	12.00	4.20	0.15	7.56		
			1	4.20	1.50	0.15	0.95		
			1	8.00	3.50	0.15	4.20		
	24th cross road		1	9.00	3.80	0.15	5.13		
							91.13	**1855.00**	**169046.15**
	Basic Rate	1750.00							
	Area Weightage 6%	105.00							
	Grand Total	1855.00							
16	**KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406. Page No. 155. Item No.20.18**	**cum**							
	bad reaches maruthinagara 1st main road		1	3.50	2.50	0.15	1.31		
			1	2.00	2.50	0.15	0.75		
			1	3.20	1.50	0.15	0.72		
			4	3.80	1.50	0.15	3.42		
			1	5.20	3.60	0.15	2.81		
			1	3.60	2.90	0.15	1.65		
			1	15.00	1.20	0.15	2.70		
			1	3.60	2.20	0.15	1.19		
			1	15.00	1.80	0.15	4.05		
			1	8.00	3.50	0.15	4.20		
			1	9.00	3.20	0.15	4.32		
			1	6.00	3.80	0.15	3.42		
			1	6.60	4.20	0.15	4.16		
			1	16.00	1.50	0.15	3.60		
	bhuvana college road		1	12.00	1.50	0.15	2.70		
			1	16.00	3.90	0.15	9.36		
			1	4.00	4.00	0.15	2.40		
			1	9.90	1.20	0.15	1.78		
	MB bakery road		1	15.00	1.80	0.15	4.05		
			1	8.00	3.50	0.15	4.20		
			1	10.00	3.20	0.15	4.80		
			1	10.00	3.80	0.15	5.70		
			1	12.00	4.20	0.15	7.56		
			1	4.20	1.50	0.15	0.95		
	24th cross road		1	8.00	3.50	0.15	4.20		
			1	9.00	3.80	0.15	5.13		
							91.13	**2001.28**	**182376.65**

AARIN ASSOCIATES BANGALORE

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
	Basic Rate	1888.00							
	Area Weightage 6%	113.28							
	Grand Total	2001.28							
17	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6)	sqm							
	bad reaches maruthinagara 1st main road		1	3.50	2.50		8.75		
			1	2.00	2.50		5.00		
			1	3.20	1.50		4.80		
			4	3.80	1.50		22.80		
			1	5.20	3.60		18.72		
			1	3.80	2.90		11.02		
			1	15.00	1.20		18.00		
			1	3.60	2.20		7.92		
			1	15.00	1.80		27.00		
			1	8.00	3.50		28.00		
			1	9.00	3.20		28.80		
			1	6.00	3.80		22.80		
			1	6.60	4.20		27.72		
			1	16.00	1.50		24.00		
	bhuvana college road		1	12.00	1.50		18.00		
			1	16.00	3.90		62.40		
			1	4.00	4.00		16.00		
			1	9.90	1.20		11.88		
	MB bakery road		1	15.00	1.80		27.00		
			1	8.00	3.50		28.00		
			1	10.00	3.20		32.00		
			1	10.00	3.80		38.00		
			1	12.00	4.20		50.40		
			1	4.20	1.50		6.30		
	24th cross road		1	8.00	3.50		28.00		
			1	9.00	3.80		34.20		
							607.51	33.92	**20606.74**
	Basic Rate	32.00							
	Area Weightage 6%	1.92							
	Grand Total	33.92							
18	KSRRB 500-2. **Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and /or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification clause 501 Page No.158. Item No.21.2**	Sqm							
	Bhuvana collage road		1	145.00	7.00		1015.00		
	maruthinagara 1st main road (Avg 7.8mtrs)		1	1165.00	7.80		9087.00		
	MB bekary road		1	255.00	5.00		1275.00		
	24th cross road		1	90.00	7.00		630.00		
							12007.00	5.30	**63637.10**
	Basic Rate	5.00							
	Area Weightage 6%	0.30							
	Grand Total	5.30							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
19	KSRRB M500-17. Providing and laying Dense Graded Bituminous Macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications. MORTH Specification No. 507. Using 100/120 TPH capacity HMP with sensor paver Gr-II (50 mm to 75mm) with 4.5% VG-30 Bitumen. Page No.160. Item No.21.17.2	Cum							
	DBM for camber corrections		1	145.00	7.00	0.05	50.75		
	Bhuvana collage road		1	1165.00	7.80	0.05	454.35		
	maruthinagara 1st main road (Avg 7.8mtrs)		1	255.00	5.00	0.05	63.75		
	MB bakery road		1	90.00	7.00	0.05	31.50		
	24th cross road						600.35		
							90.05		
	consider15%								
	bad reaches maruthinagara 1st main road		1	3.50	2.50	0.05	0.44		
			1	2.00	2.50	0.05	0.25		
			1	3.20	1.50	0.05	0.24		
			4	3.80	1.50	0.05	1.14		
			1	5.20	3.60	0.05	0.94		
			1	3.80	2.90	0.05	0.55		
			1	15.00	1.20	0.05	0.90		
			1	3.60	2.20	0.05	0.40		
			1	15.00	1.80	0.05	1.35		
			1	8.00	3.50	0.05	1.40		
			1	9.00	3.20	0.05	1.44		
			1	16.00	1.50	0.05	1.20		
	bhuvana college road		1	12.00	1.50	0.05	0.90		
			1	16.00	3.90	0.05	3.12		
			1	4.00	4.00	0.05	0.80		
			1	9.90	1.20	0.05	0.59		
			1	4.00	2.00	0.05	0.40		
	MB bakery road		1	15.00	1.80	0.05	1.35		
			1	8.00	3.50	0.05	1.40		
			1	10.00	3.20	0.05	1.60		
			1	10.00	3.80	0.05	1.90		
			1	12.00	4.20	0.05	2.52		
			1	4.20	1.50	0.05	0.32		
	24th cross road		1	8.00	3.50	0.05	1.40		
			1	9.00	3.80	0.05	1.71		
							115.19	7620.34	877786.96
	Basic Rate	7189.00							
	Area Weightage 6%	431.34							
	Grand Total	7620.34							

AARIN ASSOCIATES BANGALORE

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
20	KSRRB 500-7. **Providing and applying tack coat using 80/100 grade bitumen (VG10) on the** prepared black topped surfaces at 0.25 kg per sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5 Page No.158. Item No.21.7	Sqm							
	Bhuvana collage road		1	145.00	7.00		1015.00		
	maruthinagara 1st main road (Avg 7.8mtrs)		1	1165.00	7.80		9087.00		
	MB bekary road		1	255.00	5.00		1275.00		
	24th cross road		1	90.00	7.00		630.00		
							12007.00	**12.72**	**152729.04**
	Basic Rate	12.00							
	Area Weightage 6%	0.72							
	Grand Total	12.72							
21	Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015.do- using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4% of modified bituminous binder consisting of 4.97% ofVG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) Page No. 171. Item No.21.78.12	Cum							
	Bhuvana collage road		1	145.00	7.00	0.04	40.60		
	maruthinagara 1st main road (Avg 7.8mtrs)		1	1165.00	7.80	0.04	363.48		
	MB bekary road		1	255.00	5.00	0.04	51.00		
	24th cross road		1	90.00	7.00	0.04	25.20		
							480.28	**8699.42**	**4178157.44**
	Basic Rate	8207.00							
	Area Weightage 6%	492.42							
	Grand Total	8699.42							

AARTH ASSOCIATES BANGALORE

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
22	Providing and fixing of retro - reflectorised cautionary, mandatory and informatory sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing Page No.180. Item No.24.2	Nos							
	maruthinagara 1st main road (Avg 7.8mtrs)		2	400.00			800.00		
	MB bekary road		2	75.00			150.00		
							950.00	**137.80**	**130910.00**
	Basic Rate	130.00							
	Area Weightage 6%	7.80							
	Grand Total	137.80							
22	**KSRRB M800- 5.2 Over Head Sign Board:** Supply and installation of retro- reflection Over Head Gantry sign boards made out of cube corner IRC:67:2012 specification and fixed over 4mm thick aluminium composite panel sheet having minimum 0.3mm thick aluminium skin on both sides excluding the cost of back support frame, vertical support and horizontal support and foundation. as directed by the engineer incharge of the work Page No.181. Item No.24.6	sqm							
	maruthinagara 1st main road (Avg 7.8mtrs)		1	7.80	0.75		5.85		
	MB bekary road		1	7.00	0.75		5.25		
							11.10	**10096.50**	**112071.15**
	Basic Rate	9525.00							
	Area Weightage 6%	571.50							
	Grand Total	10096.50							
23	**KSRRB M800-4. Direction and Place Identification Signs / Project information Board with size more than 0.9 sqm Size Board:-**Providing and erecting direction and place identification retro- reflectorised sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm , 2 Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing. Page No.180. Item No.24.4								
			5	1.00			5.00		
							5.00	**7567.34**	**37836.70**

AARTH ASSOCIATES BANGALORE

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Basic Rate	7139.00							
	Area Weightage 6%	428.34							
	Grand Total	7567.34							
24	KSRRB M800-13. Road Marking with Hot Applied 'Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 Page No.182. Item No.24.15	Sqm							
	Bhuvana collage road		1	96.00	0.10		9.60		
			2	145.00	0.15		43.50		
	maruthinagara 1st main road		1	777.00	0.10		77.70		
			2	1165.00	0.15		349.50		
	MB bekary road		2	255.00	0.15		76.50		
	24th cross road		1	60.00	0.10		6.00		
			2	90.00	0.15		27.00		
	venkatappa layout main road		2	255.00	0.15		76.50		
	NDRF road		2	250.00	0.15		75.00		
							741.30	454.74	337098.76
	Basic Rate	429.00							
	Area Weightage 6%	25.74							
	Grand Total	454.74							
25	for Rain water harvesting work including 40mm jelly, 20mm jelly coarse sand, fine sand, 12.50 mm chips as per data rates	Nos	6				6	20882.00	125292.00
							Total construction cost		16663261.67
							GST 12%		1999591.40
							DPR & PMC 2%		333265.23
							Tender Premium 6%		999795.70
									4086.00
26	Miscellaneous charges							Total	20000000.00

(Rupees Two Crore Only)

CERTIFICATE

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per C.S.R. of 2018-19
3 The provisions were made in this estimate are necessary and adequate.
4 This works come under B.B.M.P. limits.

Assistant Engineer

Executive Engineer
Yelahanka Division
Bangalore-64

Assistant Executive Engineer
Yelahanka Sub Division
Bangalore-64

AARTH ASSOCIATES BANGALORE

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Estimate Cost Rs. 20000000.00

Name of Work: Detailed Estimate for the work of improvements road at Maruthinagara 2nd main and cross roads in kempegowda ward no -01 of yelahanka sub division.

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	**KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means** including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications. MORTH Specification No.301 Page No.143, Item No.19.14	cum							
	for road								
	Raghavendra swamy temple road		1	241.00	6.00	0.30	433.80		
	Dr yogesh house road		1	95.00	6.00	0.30	171.00		
							604.80	**125.59**	**75956.83**
	Basic Rate	41.00							
	Area Weightage 6%	2.46							
	Grand Total	43.46							
	Loading and unloading + Basic Rate for Haulage upto 8.00 k.m =(1.28 X 2.50 X 8)+ 57	77.48							
	Area Weightage 6%	4.65							
		125.59							
2	KSRB 2-2.1 : **Earthwork excavation by manual means for foundation of buildings, culverts, water supply and sanitary lines and electrical** conduits etc, either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m, including breaking of clods complete as per specifications. No. KBS 2.1 (a) I 2.3.5 page no 6	cum							
	for RCC drain Maruthinagara								
	11th cross road		2	64.00	1.00	1.00	128.00		
	3rd cross		2	64.00	1.00	1.00	128.00		
	4th cross		2	64.00	1.00	1.00	128.00		

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
	5th cross road		2	64.00	1.00	1.00	128.00		
	6th cross road		2	64.00	1.00	1.00	128.00		
	7th cross road		2	65.00	1.00	1.00	130.00		
	Dr yogesh house road		2	95.00	1.00	1.00	190.00		
	Raghavendra swamy temple road		2	241.00	1.00	1.00	482.00		
	for culverts		6	6.00	1.65	1.20	71.28		
	7th cross road 2nd main road 1st cross		2	6.00	1.65	1.20	23.76		
							1537.04	**399.07**	**613386.55**
	Basic Rate	299.00							
	Area Weightage 6%	17.94							
	Grand Total	316.94							
	Loading and unloading + Basic Rate for Haulage upto 8.00 k.m =(1.28 X 2.50 X 8)+ 57	77.48							
	Area Weightage 6%	4.65							
		399.07							
3	KSRB **4-1.7 : Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 20mm and down size graded granite metal coarse aggregates @0.69 cum** and fine aggregtes @ 0.56cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 Page No.13 Item No.4.7	**cum**							
	for RCC drain Maruthinagara 11th cross road		2	64.00	1.00	0.15	19.20		
	3rd cross		2	64.00	1.00	0.15	19.20		
	4th cross		2	64.00	1.00	0.15	19.20		
	5th cross road		2	64.00	1.00	0.15	19.20		
	6th cross road		2	64.00	1.00	0.15	19.20		
	7th cross road		2	65.00	1.00	0.15	19.50		
	Dr yogesh house road		2	95.00	1.00	0.15	28.50		
	Raghavendra swamy temple road		2	241.00	1.00	0.15	72.30		
	for culverts		6	6.00	1.50	0.15	8.10		
	7th cross road 2nd main road 1st cross		2	6.00	1.50	0.15	2.70		
	PCC for Kerb								
	Maruthinagara 2nd main road (30%)		2	280.00	0.17	0.10	2.86		
	Raghavendra temple road		2	241.00	0.17	0.10	8.19		
	hill tone high school (4th main)		2	200.00	0.17	0.10	6.80		
							244.95	**5627.54**	**1378465.92**
	Basic Rate	5309.00							
	Area Weightage 6%	318.54							
	Grand Total	5627.54							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
4	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. Including cost of materials, labour, HOM complete as per specifications. Page No.270, Item No.37.59.1	cum							
	for bed								
	for RCC drain Maruthinagara 11th cross road	1x2	2	64.00	0.90	0.15	17.28		
	3rd cross	1x2	2	64.00	0.90	0.15	17.28		
	4th cross	1x2	2	64.00	0.90	0.15	17.28		
	5th cross road	1x2	2	64.00	0.90	0.15	17.28		
	6th cross road	1x2	2	64.00	0.90	0.15	17.28		
	7th cross road	1x2	2	65.00	0.90	0.15	17.55		
	Dr yogesh house road		2	95.00	0.90	0.15	25.65		
	Raghavendra swamy temple road	1x2	2	241.00	0.90	0.15	65.07		
	for culverts		6	6.00	1.20	0.15	6.48		
	7th cross road 2nd main road 1st cross		2	6.00	1.20	0.25	3.60		
	for side walls								
	for RCC drain Maruthinagara 11th cross road	2x2	4	64.00	0.15	0.90	34.56		
	3rd cross	2x2	4	64.00	0.15	0.90	34.56		
	4th cross	2x2	4	64.00	0.15	0.90	34.56		
	5th cross road	2x2	4	64.00	0.15	0.90	34.56		
	6th cross road	2x2	4	64.00	0.15	0.90	34.56		
	7th cross road	2x2	4	65.00	0.15	0.90	35.10		
	Dr yogesh house road	2x2	4	95.00	0.15	0.90	51.30		
	Raghavendra swamy temple road	2x2	4	241.00	0.15	0.90	130.14		
	for culverts	6x2	12	6.00	0.230	0.90	14.90		
	7th cross road 2nd main road 1st cross		4	6.00	0.230	0.90	4.97		
							613.96	**7273.72**	**4465773.13**
	Basic Rate	6862.00							
	Area Weightage 6%	411.72							
	Grand Total	7273.72							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
5	KSRRB M 2200-6 **Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting,** bending, hooking, placing in position, lapping and or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. MORTH Specification No 1600 & 2200 TMT Bars Fe 500 Page No 229 Item No 28.8.2 SR 2018-19	**Tn**							
	for RCC drain 60 kg/cum		0.060	**584.01**			35.04		
	for Culverts 90 kg/cum		0.090	**29.95**			2.70		
				613.96			**37.74**	**72326.98**	**2729620.23**
	Basic Rate	68233.00							
	Area Weightage 6%	4093.98							
	Grand Total	72326.98							
6	**Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and** Finishing cutting , including form work, cost of alll materials, labour,hire charges of chinery,loading ,unloading ,lead and lift, transportation etc ,coomplete. (Data Rate)	**Sqm**							
	for RCC drain Maruthinagara 11th cross road		2	64.00	0.90		115.20		
	3rd cross		2	64.00	0.90		115.20		
	4th cross		2	64.00	0.90		115.20		
	5th cross road		2	64.00	0.90		115.20		
	6th cross road		2	64.00	0.90		115.20		
	7th cross road		2	65.00	0.90		117.00		
	Dr yogesh house road		2	95.00	0.90		171.00		
	raghavendra swamy temple road		2	241.00	0.90		433.80		
	Missing slabs		1	60.00	0.90		54.00		
			1	55.00	0.90		49.50		
			1	39.00	0.90		35.10		
			1	32.00	0.90		28.80		
							1465.20	**2337.00**	**3424172.40**
	Date Rate	**2337.00**							

Sl No	Description of item	Unit	No						
7	**Providing and Fixing pre cast covering Slab 250mm thick made out of CC 1:2:4** and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)	**Sqm**							
			8	6.00	1.20		57.60		
	for culvert						**57.60**	**5418.00**	**312076.80**
	Date Rate	**5418.00**							
8	**Removing and resetting of kerb stones** Page No.270. Item No.37.57	Nos							
			2	280.00			560.00		
	Maruthinagara 2nd main road						168.00		
	30% available				0.45		373.33		
							373.33	**104.94**	**39177.25**
	Basic Rate	**99.00**							
	Area Weightage 6%	5.94							
	Grand Total	104.94							
9	**Providing and fixing pre cast solid cement concrete kerb stones made out of C.C. 1:2:4 with top and bottom width 114 and** 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete. Page No.27. Item No.5.30	**Nos**							
	missing kerb stone remaining 70% for maruthinagar 2nd main road						392.00		
	Raghavendra temple road		2	241.00			482.00		
	hill tone high school (4th main)		2	200.00			400.00		
							1274.00		
					0.45		2831.11		
							2831.11	**432.48**	**1224398.45**
	Basic Rate	408.00							
	Area Weightage 6%	24.48							
	Grand Total	432.48							

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
10	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 Page No.180. Item No.24.1	sqm							
	Maruthinagara 2nd main road		2	280.00	0.45		252.00		
	Raghavendra swamy temple road		2	241.00	0.45		216.90		
	hill tone high school (4th main)		2	200.00	0.45		180.00		
							648.90	**84.80**	**55026.72**
	Basic Rate	80.00							
	Area Weightage 6%	4.80							
	Grand Total	84.80							
	for Asphalt road								
11	**Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing** coarse graded crushed stone aggregates of granite/trap/basalt material, mixing by mix in place method byrotavator at OMC, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications. Clause 401 of MORTH V Revision. Page No.153. Item No.20.6	cum							
	Raghavendra swamy temple road		1	241.00	6.00	0.15	216.90		
	Dr yogesh house road		1	95.00	6.00	0.15	85.50		
							302.40	**1855.00**	**560952.00**
	Basic Rate	1750.00							
	Area Weightage 6%	105.00							
	Grand Total	1855.00							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
12	KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406. Page No. 155. Item No.20.18	cum							
	Raghavendra swamy temple road		1	241.00	6.00	0.15	216.90		
	Dr yogesh house road		1	95.00	6.00	0.15	85.50		
							302.40	**2001.28**	**605187.07**
	Basic Rate	1888.00							
	Area Weightage 6%	113.28							
	Grand Total	2001.28							
13	**KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion** on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6)	sqm							
	Raghavendra swamy temple road		1	241.00	6.00		1446.00		
	Dr yogesh house road		1	95.00	6.00		570.00		
							2016.00	33.92	**68382.72**
	Basic Rate	32.00							
	Area Weightage 6%	1.92							
	Grand Total	33.92							

AARNA ASSOCIATES BANGALORE

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
14	KSRRB M500-17. **Providing and laying Dense Graded Bituminous Macadam using crushed aggregates of specified grading,** premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications. MORTH Specification No. 507. Using 100/120 TPH capacity HMP with sensor paver Gr-II (50 mm to 75mm) with 4.5% VG-30 Bitumen. Page No.160. Item No.21.17.2	Cum							
	DBM for camber corrections								
	Raghavendra swamy temple road		1	241.00	3.00	0.05	36.15		
	Dr yogesh house road		1	95.00	3.00	0.05	14.25		
							50.40	**7620.34**	**384065.14**
	Basic Rate	7189.00							
	Area Weightage 6%	431.34							
	Grand Total	7620.34							
15	KSRRB 500-7. **Providing and applying tack coat using 80/100 grade bitumen (VG10) on the** prepared black topped surfaces at 0.25 kg per sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5 Page No.158. Item No.21.7	Sqm							
	Raghavendra swamy temple road		1	241.00	6.00		1446.00		
	Dr yogesh house road		1	95.00	6.00		570.00		
							2016.00	**12.72**	**25643.52**
	Basic Rate	12.00							
	Area Weightage 6%	0.72							
	Grand Total	12.72							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
16	**Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015.do- using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4% of modified bituminous binder consisting of 4.97% ofVG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) Page No. 171. Item No.21.78.12**	**Cum**							
	Raghavendra swamy temple road		1	241.00	6.00	0.04	57.84		
	Dr yogesh house road		1	95.00	6.00	0.04	22.80		
							80.64	**8699.42**	**701521.23**
	Basic Rate	8207.00							
	Area Weightage 6%	492.42							
	Grand Total	8699.42							
17	**Providing and fixing of retro - reflectorised cautionary, mandatory and informatory sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 em x 45 cm x 60 em, 60 cm below ground level as per approved drawing Page No.180. Item No.24.2**	**Nos**							
	Raghavendra swamy temple road		2	120.00			240.00		
	Dr yogesh house road		2	47.00			94.00		
							334.00	**137.80**	**46025.20**
	Basic Rate	130.00							
	Area Weightage 6%	7.80							
	Grand Total	137.80							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	
18	**KSRRB M800-4. Direction and Place Identification Signs / Project Information Board with size more than 0.9 sqm Size Board:-Providing** and erecting direction and place identification retro- reflectorised sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm , 2 Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing. Page No.180, Item No.24.4	Nos							
			2	1.00			2.00		
							2.00	**7567.34**	**15134.68**
	Basic Rate	7139.00							
	Area Weightage 6%	428.34							
	Grand Total	7567.34							
19	**KSRRB M800-13. Road Marking with Hot Applied 'Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:-** Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 Page No.182. Item No.24.15	Sqm							
	Raghavendra swamy temple road		1	160.00	0.10		16.00		
			2	241.00	0.15		72.30		
	Dr yogesh house road		2	95.00	0.15		28.50		
							116.80	**454.74**	**53113.63**
	Basic Rate	429.00							
	Area Weightage 6%	25.74							
	Grand Total	454.74							
20	for Rain water harvesting work including 40mm jelly, 20mm jelly coarse sand, fine sand, 12.50 mm chips as per data rates	Nos	1				1	20882.00	20882.00

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
					Total construction cost				16798961.476
					GST 12%				2015875.38
					DPR & PMC 2%				335979.23
					Tender Premium 5%				839948.07
									9235.84
21	Miscellaneous charges							Total	20000000.00

(Rupees Two Crore Only)

CERTIFICATE

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per C.S.R. of 2018-19
3 The provisions were made in this estimate are necessary and adequate.
4 This works come under B.B.M.P. limits.

Assistant Engineer

Executive Engineer
Yelahanka Division
Bangalore-64

Assistant Executive Engineer
Yelahanka Sub Division
Bangalore-64

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Estimate Cost Rs. 20000000.00

Name of Work: Detailed Estimate for the work of Improvements to roads at Maruthinagara 3rd main and cross roads in kempegowda ward no -01 of yelahanka sub division.

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	**KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means** including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications. MORTH Specification No.301 Page No.143. Item No.19.14	cum							
	for CC road								
	Meese manjunath house road		1	37.00	3.00	0.20	22.20		
	2nd main 7th cross road		1	130.00	4.00	0.20	104.00		
	for Asphalt road								
	Alfa school road		1	395.00	6.00	0.30	711.00		
							837.20	**125.59**	**105143.95**
	Basic Rate	41.00							
	Area Weightage 6%	2.46							
	Grand Total	43.46							
	Loading and unloading + Basic Rate for Haulage upto 8.00 k.m =(1.28 X 2.50 X 8)+ 57	77.48							
	Area Weightage 6%	4.65							
		125.59							
2	KSRB 2-2.1 : **Earthwork excavation by manual means for foundation of buildings, culverts, water supply and sanitary lines and electrical** conduits etc, either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. including breaking of clods complete as per specifications. No. KBS 2.1 (a) I 2.3.5 page no 6	cum							
	for RC drain								
	Maruthinagar 7th cross road from 2nd main road to 3rd main road		1	130.00	0.70	0.50	45.50		

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Maruthinagar 7th cross road from 1st main road to 2nd main road		1	150.00	0.70	0.50	52.50		
	3rd main 1st A cross road		2	60.00	1.00	1.00	120.00		
	3rd main 1st B cross road		2	60.00	1.00	1.00	120.00		
	3rd main 2nd cross road		2	60.00	1.00	1.00	120.00		
	3rd main 3rd cross road		2	60.00	1.00	1.00	120.00		
	3rd main 4th cross road		2	60.00	1.00	1.00	120.00		
	3rd main 5th cross road		2	60.00	1.00	1.00	120.00		
	1st main 4th cross road		1	80.00	1.00	1.00	80.00		
	1st main 2nd cross		1	100.00	1.00	1.00	100.00		
	24th C cross road (alfa school road)		1	210.00	1.00	1.00	210.00		
							1594.75	**399.07**	**636416.88**
	Basic Rate	299.00							
	Area Weightage 6%	17.94							
	Grand Total	316.94							
	Loading and unloading + Basic Rate for Haulage upto 8.00 k.m =(1.28 X 2.50 X 8)+ 57	77.48							
	Area Weightage 6%	4.65							
		399.07							
3	KSRB M300-19 Removal of unserviceable soil including excavation, loading and disposal but excluding replacement by suitable soil which shall be paid separately as per clause 300.5 complete as per specification no 301 pag no 147 It no 19.62								
	Desilting of existing drains								
	Maruthinagar 3rd main road		2	550.00	0.50	0.35	192.50		
	Basic Rate	34.00					**192.50**	**36.04**	**6937.70**
	Area Weightage 6%	2.04							
	Grand Total	36.04							
4	KSRRB M300-55. Construction of sub-grade and earthen shoulders with approved material Grave/Murrum with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table No. 300-2 complete as per specifications (including cos of earth, watering charges & compaction by vibratory roller to 97% of modified proctors density) MORTH Specification No. 305 Page No 147 Item no 19.62 SR	cum							
	Alfa school road		1	395.00	6.00	0.30	711.00		
							711.00	**369.94**	**263027.34**
	Basic Rate	349.00							
	Area Weightage 6%	20.94							
	Grand Total	369.94							

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
5	KSRB 4-1.7 : **Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 20mm and down size graded granite metal coarse aggregates @0.69 cum** and fine aggregtes @ 0.56cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 Page No.13 Item No.4.7	cum							
	Maruthinagar 7th cross road from 2nd main road to 3rd main road		1	130.00	1.20	0.15	23.40		
	Maruthinagar 7th cross road from 1st main road to 2nd main road		1	150.00	1.20	0.15	27.00		
	3rd main 1st A cross road		2	60.00	1.00	0.15	18.00		
	3rd main 1st B cross road		2	60.00	1.00	0.15	18.00		
	3rd main 2nd cross road		2	60.00	1.00	0.15	18.00		
	3rd main 3rd cross road		2	60.00	1.00	0.15	18.00		
	3rd main 4th cross road		2	60.00	1.00	0.15	18.00		
	3rd main 5th cross road		2	60.00	1.00	0.15	18.00		
	1st main 2nd cross road		1	80.00	1.00	0.15	12.00		
	24th C cross road (alfa school road)		1	210.00	1.00	0.15	31.50		
	PCC for Kerb								
	Maruthinagara 3rd main road remaining 60%		2	550.00	0.17	0.10	18.70		
							220.60	**5627.54**	**1241435.32**
	Basic Rate	5309.00							
	Area Weightage 6%	318.54							
	Grand Total	5627.54							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
6	Providing and laying **plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs.** with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specifications. Page No.270. Item No.37.59.1	**cum**							
	for bed								
	Maruthinagar 7th cross road from 2nd main road to 3rd main road		1	130.00	1.00	0.15	19.50		
	Maruthinagar 7th cross road from 1st main road to 2nd main road		1	150.00	1.00	0.15	22.50		
	3rd main 1st A cross road		2	60.00	0.90	0.15	16.20		
	3rd main 1st B cross road		2	60.00	0.90	0.15	16.20		
	3rd main 2nd cross road		2	60.00	0.90	0.15	16.20		
	3rd main 3rd cross road		2	60.00	0.90	0.15	16.20		
	3rd main 4th cross road		2	60.00	0.90	0.15	16.20		
	3rd main 5th cross road		2	60.00	0.90	0.15	16.20		
	1st main 4th cross road		1	80.00	0.90	0.15	10.80		
	1st main 2nd cross		1	100.00	0.90	0.15	13.50		
	24th C cross road (alfa school road)		1	210.00	0.90	0.15	28.35		
	side walls								
	Maruthinagar 7th cross road from 2nd main road to 3rd main road		2	130.00	0.15	1.00	39.00		
	Maruthinagar 7th cross road from 1st main road to 2nd main road		2	150.00	0.15	1.00	45.00		
	3rd main 1st A cross road		4	60.00	0.15	0.75	27.00		
	3rd main 1st B cross road		4	60.00	0.15	0.75	27.00		
	3rd main 2nd cross road		4	60.00	0.15	0.75	27.00		
	3rd main 3rd cross road		4	60.00	0.15	0.75	27.00		
	3rd main 4th cross road		4	60.00	0.15	0.75	27.00		
	3rd main 5th cross road		4	60.00	0.15	0.75	27.00		
	1st main 2nd cross road		2	80.00	0.15	0.75	18.00		
	24th C cross road (alfa school road) LHS		2	210.00	0.15	0.75	47.25		
							503.10	**7273.72**	**3659408.53**
	Basic Rate	6862.00							
	Area Weightage 6%	411.72							
	Grand Total	7273.72							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
7	KSRRB M 2200-6 **Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending,** hooking, placing in position, lapping and or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. MORTH Specification No 1600 & 2200 TMT Bars Fe 500 Page No 229 Item No 28.8.2 SR 2018-19	Tn							
	for RCC drain 60 kg/cum		0.060	**503.10**			30.19		
				503.10			**30.19**	**72326.98**	**2183551.53**
	Basic Rate	68233.00							
	Area Weightage 6%	4093.98							
	Grand Total	72326.98							
8	**Removing & Refixing of stone slabs of drains and pointing in C.M (1:3) page no-27. I. no-5.33**	**Sqm**							
	Maruthinagar 3rd main road		2	550.00	0.90		990.00		
							990.00	**111.30**	**110187.00**
	Basic Rate	**105.00**							
	Area Weightage 6%	6.30							
	Grand Total	111.30							
8	**Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and** Finishing cutting , including form work, cost of alll materials, labour,hire charges of chinery,loading ,unloading ,lead and lift, transportation etc comnplete. (Data Rate)	**Sqm**							
	Maruthinagar 7th cross road from 2nd main road to 3rd main road		1	130.00	0.90		117.00		
	Maruthinagar 7th cross road from 1st main road to 2nd main road		1	150.00	0.90		135.00		
	3rd main 1st A cross road		2	60.00	0.90		108.00		
	3rd main 1st B cross road		2	60.00	0.90		108.00		
	3rd main 2nd cross road		2	60.00	0.90		108.00		
	3rd main 3rd cross road		2	60.00	0.90		108.00		
	3rd main 4th cross road		2	60.00	0.90		108.00		
	3rd main 5th cross road		2	60.00	0.90		108.00		
	1st main 2nd cross road		1	80.00	0.90		72.00		

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	24th C cross road (alfa school road)		1	210.00	0.90		189.00		
							1161.00		
	Missing covering slabs								
	Maruthinagara 3rd main road		2	550.00	0.90		990.00		
							990.00		
	Consider 35% of slabs						**346.50**		
							1507.50	**2337.00**	**3523027.50**
	Date Rate	**2337.00**							
9	**Removing and resetting of kerb stones** Page No.270. Item No.37.57	Nos							
	Maruthinagara 3rd main road		2	550.00			1100.00		
	35% available						550.00		
					0.45		1222.22		
							1222.22	**104.94**	**128259.77**
	Basic Rate	**99.00**							
	Area Weightage 6%	5.94							
	Grand Total	104.94							
10	**Providing and fixing pre cast solid cement concrete kerb stones made out of C.C. 1:2:4 with top and bottom width 114 and** 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete. Page No.27. Item No.5.30	**Nos**							
	Maruthinagara 3rd main road remaining 65%						550.00		
							550.00		
					0.45		1222.22		
							1222.22	**432.5**	**528585.7056**
	Basic Rate	408.00							
	Area Weightage 6%	24.48							
	Grand Total	432.5							
11	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 Page No.180. Item No.24.1	**sqm**							
	Maruthinagara 3rd main road		2	550.00	0.45		495.00		
							495.00	**84.80**	**41976.00**
	Basic Rate	80.00							
	Area Weightage 6%	4.80							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Grand Total	84.80							
	for CC road								
12	**KSRRB M600-1. Construction of dry lean cement concrete mix CC 1:5:10 with OPC cement @160Kgs, with 25mm and down size graded granite metal coarse aggregate at 0.86cum and fine aggregates @ 0.58cum Sub-base over a prepared sub-grade with (coarse and fine aggregate conforming to IS: 383) aggregate cement ratio not to exceed 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content not to be less than 160 kg/ cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications. MORTH Specification No. 601 of MORTH V Revision and IS 456 Table-5 22.1.1 -do- with OPC at 150 kg/cum and coarse aggregate 0.86cum, fine aggregate 0.58cum using Concrete Batch mix Plant at 75 cum/hr capacity with Slip form paver with electronic sensor Page No.174. Item No.22.1.1**	**Cum**							
	for CC road								
	Meese manjunath house road		1	37.00	3.00	0.15	16.65		
	2nd main 7th cross road		1	130.00	4.00	0.15	78.00		
							94.65	**3800.10**	**359679.47**
	Basic Rate	3585.00							
	Area Weightage 6%	215.10							
	Grand Total	3800.10							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
13	Constructing un-reinforced, plain cement concrete for pavements using Grade concrete M30 over a prepared base with OPC coarse aggregate at 0.69 cum, fine aggregates at 0.46 cum.Coarse and fine aggregate conforming to 18:383-2016, with Superplastizer at 3 lts conforming to IS 9103-2008. mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades, textured with texturing machine, and curing including cost of all materials, labour,hire charges of machineries,all lead & lift charges etc., complete as per specifications. do- with OPC at 360 kg/cum and coarse aggregate 0.69cum, fine aggregate 0.46cum. Page No.176. Item No.22.6.1	Cum							
	for CC road								
	Meese manjunath house road		1	37.00	2.50	0.150	13.88		
	2nd main 7th cross road		1	130.00	4.00	0.150	78.00		
							91.88	5210.96	478783.00
	Basic Rate	4916.00							
	Area Weightage 6%	294.96							
	Grand Total	5210.96							
14	**Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing** coarse graded crushed stone aggregates of granite/trap/basalt material, mixing by mix in place method byrotavator at OMC, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications. Clause 401 of MORTH V Revision. Page No.153. Item No.20.6	cum							
	fro asphalt road								
	Maruthinagara Alpha School road		1	395.00	6.00	0.15	355.50		
	4th cross road 1st main		1	100.00	11.00	0.15	165.00		
	for CC road								
	Meese manjunath house road		1	37.00	3.00	0.15	16.65		
	2nd main 7th cross road		1	130.00	4.00	0.15	78.00		
							615.15	1855.00	1141103.25

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
	Basic Rate	1750.00							
	Area Weightage 6%	105.00							
	Grand Total	1855.00							
15	KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406. Page No.155. Item No.20.18	**cum**							
	for Asphalt road								
	Maruthinagara Alpha School road		1	395.00	6.00	0.15	355.50		
							355.50	**2001.28**	**711455.04**
	Basic Rate	1888.00							
	Area Weightage 6%	113.28							
	Grand Total	2001.28							
16	**KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion** on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6)	**sqm**							
	Maruthinagara Alpha School road		1	395.00	6.00		2370.00		
							2370.00	33.92	**80390.40**
	Basic Rate	32.00							
	Area Weightage 6%	1.92							
	Grand Total	33.92							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
17	KSRRB **M500-17. Providing and laying Dense Graded Bituminous Macadam using crushed aggregates of specified grading,** premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications. MORTH Specification No. 507. Using 100/120 TPH capacity HMP with sensor paver Gr-II (50 mm to 75mm) with 4.5% VG-30 Bitumen. Page No.160. Item No.21.17.2	**Cum**							
	for camber correction								
	Maruthinagara Alpha School road		1	395.00	3.00	0.05	59.25		
							59.25		
	Basic Rate	7189.00					**59.25**	**7620.34**	**451505.145**
	Area Weightage 6%	431.34							
	Grand Total	7620.34							
18	KSRRB 500-7. **Providing and applying tack coat using 80/100 grade bitumen (VG10) on the** prepared black topped surfaces at 0.25 kg per sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5 Page No.158. Item No.21.7	**Sqm**							
	Maruthinagara Alpha School road		1	395.00	6.00		2370.00		
	Basic Rate	12.00					**2370.00**	**12.72**	**30146.40**
	Area Weightage 6%	0.72							
	Grand Total	12.72							

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Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
19	Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015.do- using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4% of modified bituminous binder consisting of 4.97% ofVG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) Page No. 171. Item No.21.78.12	Cum							
	Maruthinagara Alpha School road		1	395.00	6.00	0.04	94.80		
							94.80	8699.42	824705.02
	Basic Rate	8207.00							
	Area Weightage 6%	492.42							
	Grand Total	8699.42							
20	Providing and fixing of retro - reflectorised cautionary, mandatory and informatory sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 em x 45 cm x 60 em, 60 cm below ground level as per approved drawing Page No.180. Item No.24.2	Nos							
	Maruthinagara Alpha School road		2	200.00			400.00		
	4th cross road 1st main		2	50.00			100.00		
							500.00	137.80	68900.00
	Basic Rate	130.00							
	Area Weightage 6%	7.80							
	Grand Total	137.80							

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Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
21	**KSRRB M800-4. Direction and Place Identification Signs / Project information Board with size more than 0.9 sqm Size Board:-Providing** and erecting direction and place identification retro- reflectorised sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm , 2 Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 em, 60 em below ground level as per approved drawing. Page No.180. Item No.24.4	Nos							
	Maruthinagara Alpha School road		1	1.00			1.00		
							1.00	**7567.34**	**7567.34**
	Basic Rate	7139.00							
	Area Weightage 6%	428.34							
	Grand Total	7567.34							
22	**KSRRB M800-13. Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:-** Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 Page No.182. Item No.24.15	Sqm							
	Maruthinagara Alpha School road		1	266.00	0.10		17.73		
			2	395.00	0.15		118.50		
							136.23	**454.74**	**61949.23**
	Basic Rate	429.00							
	Area Weightage 6%	25.74							
	Grand Total	454.74							

AARTH ASSOCIATES BANGALORE

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
23	for Rain water harvesting work including 40mm jelly, 20mm jelly coarse sand, fine sand, 12.50 mm chips as per data rates	Nos	1				1	20882.00	20882.00
					Total construction cost				16665023.52
					GST 12%				1999802.82
					DPR & PMC 2%				333300.47
					Tender Premium 6%				999901.41
25	Miscellaneous charges								1971.78
								Total	20000000.00
(Rupees Two Crore Only)									

CERTIFICATE

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per C.S.R. of 2018-19
3 The provisions were made in this estimate are necessary and adequate.
4 This works come under B.B.M.P. limits.

AARTH ASSOCIATES BANGALORE

Assistant Engineer

Executive Engineer
Yelahanka Division
Bangalore-64

Assistant Executive Engineer
Yelahanka Sub Division
Bangalore-64

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Estimate Cost Rs. 15000000.00

Name of Work: Detailed Estimate for the work of Improvements to roads and drains at Vinivink Shastry layout in kempegowda ward no-01 of yelahanka sub division.

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	**KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means** including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications. MORTH Specification No.301 Page No.143, Item No.19.14	cum							
	for CC road								
	Vinivink shastry Main road		1	135.00	7.00	0.20	189.00		
	Vinivink shastry 2nd main road up to Basavaraj house		1	240.00	7.00	0.20	336.00		
	Vinivink shastry 3rd cross road		1	108.00	7.00	0.20	151.20		
	Vinivink shastry 4th cross road		1	108.00	7.00	0.15	113.40		
							789.60	**125.59**	**99165.86**
	Basic Rate	41.00							
	Area Weightage 6%	2.46							
	Grand Total	43.46							
	Loading and unloading + Basic Rate for Haulage upto 8.00 k.m =(1.28 X 2.50 X 8)+ 57	77.48							
	Area Weightage 6%	4.65							
		125.59							
2	KSRB 2-2.1 : **Earthwork excavation by manual means for foundation of buildings, culverts, water supply and sanitary lines and electrical** conduits etc, either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. including breaking of clods complete as per specifications. No. KBS 2.1 (a) I 2.3.5 page no 6	cum							
	for RCC drain								
	Vinivink shastry Main road		1	135.00	1.00	1.00	135.00		
	Basavaraj house Road		2	102.00	1.00	1.00	204.00		
	Vinivink shastry 3rd cross road		1	108.00	1.00	1.00	108.00		
	Vinivink shastry 4th cross road		2	108.00	1.00	1.00	216.00		

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
	for culverts								
	Vinivink shastry 2rd cross road up to basavaraj House		3	8.00	1.65	1.20	47.52		
							710.52	**399.07**	**283547.22**
	Basic Rate	299.00							
	Area Weightage 6%	17.94							
	Grand Total	316.94							
	Loading and unloading + Basic Rate for Haulage upto 8.00 k.m =(1.28 X 2.50 X 8)+ 57	77.48							
	Area Weightage 6%	4.65							
		399.07							
3	KSRB 4-1.7 : **Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 20mm and down size graded granite metal coarse aggregates @0.69 cum** and fine aggregtes @ 0.56cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 Page No.13 Item No.4.7	cum							
	for RCC drain								
	Vinivink shastry Main road		1	135.00	1.00	0.15	20.25		
	basavaraj House Road		2	102.00	1.00	0.15	30.60		
	Vinivink shastry 3rd cross road		1	108.00	1.00	0.15	16.20		
	Vinivink shastry 4th cross road		2	108.00	1.00	0.15	32.40		
	for culverts						0.00		
	Vinivink shastry 2rd cross road up to basavaraj House		3	8.00	1.65	0.15	5.94		
	PCC for Kerb Stone						0.00		
	Vinivink shastry Main road		2	135.00	0.165	0.10	4.46		
	Vinivink shastry 2nd main road up to Basavaraj house		2	250.00	0.165	0.10	8.25		
	Vinivink shastry 3rd cross road		2	108.00	0.165	0.10	3.56		
	Vinivink shastry 4th cross road		2	108.00	0.165	0.10	3.56		
							125.22	**5627.54**	**704680.56**
	Basic Rate	5309.00							
	Area Weightage 6%	318.54							
	Grand Total	**5627.54**							

AARTH ASSOCIATES BANGALORE

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
4	Providing **and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs.** with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specifications. Page No.270. Item No.37.59.1	cum							
	for bed								
	for RCC drain								
	Vinivink shastry Main road		1	135.00	0.90	0.15	18.23		
	basavaraj House Road		2	102.00	0.90	0.15	27.54		
	Vinivink shastry 3rd cross road		1	108.00	0.90	0.15	14.58		
	Vinivink shastry 4th cross road		2	108.00	0.90	0.15	29.16		
	for culverts						0.00		
	Vinivink shastry 2rd cross road up to basavaraj House		3	8.00	1.20	0.25	7.20		
	for side walls						0.00		
	Vinivink shastry Main road		2	135.00	0.15	0.75	30.38		
	basavaraj House Road		4	102.00	0.15	0.75	45.90		
	Vinivink shastry 3rd cross road		2	108.00	0.15	0.75	24.30		
	Vinivink shastry 4th cross road		4	108.00	0.15	0.75	48.60		
							0.00		
	for culverts (0.25+0.30)/2=0.275		6	8.00	0.230	0.90	9.94		
							255.82	**7273.72**	**1860763.05**
	Basic Rate	6862.00							
	Area Weightage 6%	411.72							
	Grand Total	7273.72							
5	KSRRB M 2200-6 **Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending,** hooking, placing in position, lapping and or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. MORTH Specification No 1600 & 2200 TMT Bars Fe 500 Page No 229 Item No 28.8.2 SR 2018-19	Tn							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	for RCC drain 60 kg/cum		0.060	238.68			14.32		
	for RCC culvert 90 kg/cum		0.090	17.14			1.54		
				255.82			15.86	72326.98	1147105.90
	Basic Rate	68233.00							
	Area Weightage 6%	4093.98							
	Grand Total	72326.98							
6	**Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and** Finishing cutting , including form work, cost of alll materials, labour,hire charges of chinery,loading ,unloading ,lead and lift, transportation etc coomplete. (Data Rate)	Sqm							
	Vinivink shastry Main road		1	135.00	0.90		121.50		
	basavaraj House Road		2	102.00	0.90		183.60		
	Vinivink shastry 3rd cross road		1	108.00	0.90		97.20		
	Vinivink shastry 4th cross road		2	108.00	0.90		194.40		
							596.70	2337.00	1394487.90
	Data Rate	2337.00							
7	**Providing and Fixing pre cast covering Slab 250mm thick made out of CC 1:2:4** and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)	Sqm							
	for culverts		3	8.00	1.20		28.80		
							28.80	5418.00	156038.40
	Date Rate	5418.00							
8	**Providing and fixing pre cast solid cement concrete kerb stones made out of C.C. 1:2:4 with top and bottom width 114 and** 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete. Page No.27. Item No.5.30	Nos							
	vinivink shastry main road		2	135.00			270.00		
	Vinivink shastry 2nd cross road		2	250.00			500.00		
	Vinivink shastry 3rd cross road		2	108.00			216.00		
	Vinivink shastry 4th cross road		2	108.00			216.00		
							1202.00		

AARTI ASSOCIATES BANGALORE

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
					0.45		2671.11		
							2671.11	**432.48**	**1155201.65**
	Basic Rate	408.00							
	Area Weightage 6%	24.48							
	Grand Total	432.48							
9	KSRRB 800-1. **Painting two coats after filling the surface** with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 Page No.180. Item No.24.1	**sqm**							
	vinivink shastry main road		2	135.00	0.45		121.50		
	Vinivink shastry 2nd main road up to Basavaraj house		2	250.00	0.45		225.00		
	Vinivink shastry 3rd cross road		2	108.00	0.45		97.20		
	Vinivink shastry 4th cross road		2	108.00	0.45		97.20		
							540.90	**84.80**	**45868.32**
	Basic Rate	80.00							
	Area Weightage 6%	4.80							
	Grand Total	84.80							
	for CC road								
10	**KSRRB M600-1. Construction of dry lean cement concrete mix CC 1:5:10 with OPC cement @160Kgs, with 25mm and down size graded granite metal coarse** aggregate at 0.86cum and fine aggregates @ 0.58cum Sub-base over a prepared sub-grade with (coarse and fine aggregate conforming to IS: 383) aggregate cement ratio not to exceed 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content not to be less than 160 kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications. MORTH Specification No. 601 of MORTH V Revision and IS 456 Table-5 22.1.1 -do- with OPC at 150 kg/cum and coarse aggregate 0.86cum, fine aggregate 0.58cum using Concrete Batch mix Plant at 75 cum/hr capacity with Slip form paver with electronic sensor	**Cum**							
	for CC road								
	vinivink shastry main road		1	135.00	7.00	0.15	141.75		
	Vinivink shastry 2nd main road up to Basavaraj house		1	240.00	7.00	0.15	252.00		

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Vinivink shastry 3rd cross road		1	108.00	7.00	0.15	113.40		
	Vinivink shastry 4th cross road		1	108.00	7.00	0.15	113.40		
							620.55	3800.10	2358152.06
	Basic Rate	3585.00							
	Area Weightage 6%	215.10							
	Grand Total	3800.10							
11	**Constructing un-reinforced, plain cement concrete for pavements using Grade concrete M30 over a prepared base with OPC coarse aggregate at 0.69 cum, fine aggregates at 0.46 cum,Coarse and** fine aggregate conforming to 18:383-2016, with Superplastizer at 3 lts conforming to IS 9103-2008. mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixdures as approved, curing compound, finishing to lines and grades, textured with texturing machine, and	Cum							
	for CC road								
	vinivink shastry main road		1	135.00	7.00	0.125	118.13		
	Vinivink shastry 2nd main road up to Basavaraj house		1	240.00	7.00	0.15	252.00		
	Vinivink shastry 3rd cross road		1	108.00	7.00	0.15	113.40		
	Vinivink shastry 4th cross road		1	108.00	7.00	0.15	113.40		
							596.93	5210.96	3110578.35
	Basic Rate	4916.00							
	Area Weightage 6%	294.96							
	Grand Total	5210.96							
22	**KSRRB M800-13. Road Marking with Hot Applied 'Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:-** Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 Page No.182. Item No.24.15	Sqm							
	vinivink shastry main road		1	90.00	0.10		9.00		

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
			2	135.00	0.15		40.50		
	Vinivink shastry 2nd main road up to Basavaraj house		1	166.00	0.10		16.60		
			2	240.00	0.15		72.00		
	Vinivink shastry 3rd cross road		1	72.00	0.10		7.20		
			2	108.00	0.15		32.40		
	Vinivink shastry 4th cross road		1	72.00	0.10		7.20		
			2	108.00	0.15		32.40		
							217.30	**454.74**	**98815.00**
	Basic Rate	429.00							
	Area Weightage 6%	25.74							
	Grand Total	454.74							
13	for Rain water harvesting work including 40mm jelly, 20mm jelly coarse sand, fine sand, 12.50 mm chips as per data rates	Nos	4				4	20882.00	83528.00
							Total construction cost		**12497932.28**
							GST 12%		**1499751.87**
							DPR & PMC 2%		**249958.65**
							Tender Premium 6%		**749875.94**
	Miscellaneous charges								**2481.27**
								Total	**15000000.00**

(Rupees One Crore Fifty lakhs Only)

CERTIFICATE

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per C.S.R. of 2018-19
3 The provisions were made in this estimate are necessary and adequate.
4 This works come under B.B.M.P. limits.

Assistant Engineer

Executive Engineer
Yelahanka Division
Bangalore-64

Assistant Executive Engineer
Yelahanka Sub Division
Bangalore-64

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

	Estimate Cost Rs.	5000000.00

Name of Work: Detailed Estimate for the work of Drilling of borewell and providing pipe line in kempegowda ward no -01 of yelahanka Sub division.

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	Geophysical investigation of site for sinking borewell for supplying drinking water to the habitation either through the hand pump, MWS or P.W.S.S. by vertical electrical sounding by adopting venner or schlumbergers's method, including reconnaissance survey of geological formation, Geological investigation of existing ground water in vicinity, its quality, quantity & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 mtr in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site, engaging technical personal and labour required etc (P.NO-47, I.NO-9.4, PRED 12-13 SR)	Each							
			5				5.00		
							5.00	**2065.00**	**10325.00**
2	**Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m.** fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) (P.NO-47, I.NO-9.1, PRED 12-13 SR)								
	0.00 to 50.00 Mtr.	Mtr	5	50.00			250.00	315.80	78950.00
	50.00 to 100.00 Mtr.	Mtr	5	50.00			250.00	412.60	103150.00
	100.00 to 150.00 Mtr.	Mtr	5	50.00			250.00	458.35	114587.50
	150.00 to 200.00 Mtr.	Mtr	5	50.00			250.00	484.10	121025.00
	200.00 to 250.00 Mtr.	Mtr	5	50.00			250.00	560.32	140080.00

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
	250.00 to 300.00 Mtr.	Mtr	5	50.00			250.00	600.49	150122.50
	300.00 to 350.00 Mtr.	Mtr	5	50.00			250.00	622.00	155500.00
3	**Supplying of ISI Mark 175 mm nominal bore medium black ERW casing pipe of 5mm thick black** electric resistance continous welded midle steel tube material confirming to IS 1387/1993 and manufactured from hot rolled steel skelp/stripes in random length of 4 to 7 mtr both ends threaded confirming to IS 554/1985 one end(including of all taxes) (P.NO-III, I.NO-84, PRED 12-13 SR)	Rmt							
			5	50.00			250.00	1325.00	331250.00
4	Providing and fixing 250mm dia PVC pipe and as per specification and directions. (BWSSB SR 13-14, P.No.53 I.no.1 of sl.no.11.)	Rmt							
			5	6			30.00	1100.00	33000.00
5	175 mm dia M.S. Casing cap (P.NO-III, I.NO-85, PRED 12-13 SR)6	Each							
			5				5.00	100.00	500.00
6	supply of 175mm M.S collars each (P.NO-III, I.NO-86, PRED 12-13 SR)	Each							
			5	7.00			35.00	150.00	5250.00
7	Supply & delivery at site brand new texmo/innoval/lubi/sabar /Atalanta/calamal/ waterman/Radha make suitable HP deep well submercible pumpset suitable for vertical installation in 150 dia borewells compressing of single stage or multistage CF pump close coupled by means of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water squirrel cagesubmercible induction motor suitable for operation of 3Ph, 50Hz.380/440 volts AC supply fitted with required accessories such as suction, casing, suction strainers, sand guard. Non return valve etc Complete the pump and motor shall from an integral unit with all the required fittings 15HP/11KW 25 stage (P.NO-XLII, I.NO-41, PWD SR-2018-19)	Nos							
			5				5.00	63986.90	319934.50
8	**Providing, laying & jointing GI pipes confirming to IS specification of approved make with fittings** such as collars bends elbows tees nipples plugs with cuts threads using white lead & threads for joints wherever necessary as per direction including all lead & lift etc,. complete 'A' grade(excluding cost of fittings) 50mm dia GI pipe **(PWD SR-2018-19, P.No.92 I.no. 13.6)**	Rmtr							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
			5	300.00			1500.00	542.72	814080.00
9	supply of 50mm M.S collars	Each							
			5	50.00			250.00	212.00	53000.00
10	**Supplying and drawing 3 core PVC Sheathed submersible pump cable** manufactured with electrolytic grade copper with flexible copper conductor confirming to table 3 class 5 of IS: 8130-1984 and virgin grade PVC insulation and sheathed suitable for working voltage upto 1100 volts 4 sqmm of 56 strands 0.3mm dia (P.NO-535, I.NO-30 (c), Group A BWSSB 13-14 SR)	Rmt							
			9	300.00			2700.00	164.29	443583.00
11	Supplying & delivery at site brand new / Essen / Lotus sunsines/Adarsh/ Gk controls best indigenous make combine energy meter-cum-control panel board unit of size 1200 x 600 x 300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph, 50Hz, 380/440 volts, AC supply with spring loaded latch locking with a key ribs should be provided inside the door , canopy apron and louvers ventilators shall be provided the combine energy mtr cum control panel board unit suitable for operation on 3ph, 50Hz, 380/440 AC supply shall be consisted etc,. completed T panel board shall be fabricated on single unit in the above components panel board for suitable pumpset above components panel board for suitable pumpset above 6.50 HP to 15.00 HP with star delta starter (MR)	Nos							
			5				5.00	14800.00	74000.00
12	**Fabricating supplying and mounting MS box of 16 SWG suitable for floor / wall mounting**, fully weather proof with provision for better hear description, (providing with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primes paint and finally finished with approved colour enamelled metal paint etc,. complete box of 21600 sq cm (P.NO-530, I.NO-39 b, BWSSB SR 13-14)	Sqm Cm							
	for 1 borewell		5	1100.00	20.00		110000.00		

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
							110000.00	0.34	37400.00
13	Providing & Fixing of clamps set and borewell cap to the pump (MR)	No's							
			5				5.00	1800.00	9000.00
14	Supplying & delivery of brand new best make non return valve of size 50mm as per IS: 778/84 with latest amendments with ISI mark (50mm Gate wheel Valve. (PWD SR-2018-19, P.NO.XXV, Sl.no, 647)	No's							
			5				5.00	1016.95	5084.75
15	Supplying and delivery of brand new best make Gate Valve of size 50mm as per IS: 778/84 with latest amendments with ISI mark . 50mm Gate Valve for distributer pipeline. 50mm dia (PWD SR-2018-19, P.NO.XXVI, Sl.no, 661)	No's							
			5	2.00			10.00	1482.21	14822.09
16	Providing and fixing of 50mm GI Shortbend to motor (PWD SR-2018-19, P.NO.XXXIX, G.I. Pipe Fittings - ISI Standards Table)	No's							
			9				9.00	232.14	2089.26
17	Providing and fixing of 50mm GI union to the motor (PWD SR-2018-19, P.NO.XXXIX, G.I. Pipe Fittings - ISI Standards Table)	No's							
			9				9.00	237.12	2134.08
18	suppling & fixing of 50mm GI Elbow PWD SR 18-19 XXXIX	No's							
			5				5.00	111.80	559.00
19	Labour charges for erection of new /repaired submersible pumpset along with GI pipes (32/50mm) cable (new submersible pumpset if required will be supplied by the department free of cost and released pump set should be handed over to department) including transportation (each length = 6.00m) (P.No - 564, I.No - 3, BWSSB SR 13-14)	Per length							
			5	50.00			250.00	90.64	22660.00
20	Erection of combined panel board meter board with all necessary materials and labour including providing CC 1:3:6 foundation bed etc,. Complete for basement out door type. (MR)	No's							
			5				5.00	475.00	2375.00
21	Supplying and fixing miniature circuit breakers/isolators in existing MCB distribution boards using necessary fixing materials and wiring complete as required, 40 to 63 Amps DP (P.NO - 526, I.NO - 13D (a), BWSSB SR 13-14)	No's							
			5				5.00	906.40	4532.00

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
22	Supplying and laying of L.T.U.G Cable having aluminiumconductor PVC insulated shethed galvanised steel wire/ steel tape armoured cable with PVC outer sheathing 1.1 KV class 4 core 16 sqmm cable (confirming to IS 1554) (P.NO - 553, I.NO - 10 (d), BWSSB SR 13-14)	Mtr							
			5	35.00			175.00	169.95	29741.25
23	Digging of trenches of 0.6mm x 0.50 Mtrs wide refilling the trench to the required ground level and consolidating etc,. Complete sutting road surfaces (P.NO - 554, I.NO - 12 (b), BWSSB SR 13-14)	Mtr							
			5	35.00			175.00	56.65	9913.75
24	Supplying and fixing Class-A GI Pipe on pole/ wall/drain crossing with necessary clamping arrangements for UG Cable of 1.1 KV class 40mm (P.NO - 555, I.NO - 15 (b), BWSSB SR 13-14)	Mtr							
			5	3.00			15.00	249.26	3738.90
25	Supplying and fixing wiring earth electrode for grounding conduits, IC cutouts and other equipments on the meter board using 40mm dia 2.90 mm thick GI pipe 2.5 mtr long buried in a pit,/ the pit should be filled with equal proportion of salt and charocal 150 mm alround the pipe to complete depth the connections from the pipe to the conduit etc,. is to be established though GI wire of size as per ISI specification 7.3.3 of ISI 732 using 12mm dia boalts, nuts washers and checknuts etc,. the pipe shall have 16 through holes of 122mm dia (P.NO - 552, I.NO - 7 , BWSSB SR 13-14)	No's							
			5				5.00	1699.50	8497.50
26	Supply and fixing LT cast iron pot heads suitable for 1.1 KV class 16 sqmmUG cable filled with necessary bitumen/ insulating compound complete with terminals, clamps, bolts nuts and washers etc, (P.NO - 555, I.NO - 16 (b) , BWSSB SR 13-14)	No's							
			5				5.00	271.92	1359.60
27	Supplying shunt capacitor's confirming to IS 2834, 3phase 400/440 volts grade for power factor improvement of roating machinery capacitor in KVAR rating No's. (MR)	No's							
			5				5.00	1350.00	6750.00

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
28	Providing and fixing Gun Metal Gate wheel valve confirming to IS specification of approved make as per direction including all lead and lift etc., Complete. 50mm dia (P.NO - 94, I.NO - 13,79.6, PWD SR-2018-19)								
		No's	5				5.00	778.04	3890.20
29	Supplying and fixing of polished wood board made of not less than 15mm thick plank on both sides with planks made out on not more than 2 pieces and fixing the same to wall using tapered inverted wooden plugs screws etc., Size 20 x 20 x 2.5 inches (P.NO - 521, I.NO - 2 (f), BWSSB SR 13-14)	No's							
			5				5.00	311.58	1557.90
30	Erection of pumping machineries PRE SR 12-13 pg 51/10.3.20	No					5.00	900.00	4500.00
31	Bescom Deposit charges	L/S					5.00	13300.00	66500.00
32	Borewell registration charges per Rs 1000 each for BWSSB	Nos					5.00	1000.00	5000.00
33	KSRB 2-2.2 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinery soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(b) / 2.3.5(Page No.5 , Item No.2.4,PW,P & IWTD SR 2018-19)	cum							
	For water line supply		1	850.00	0.60	0.90	459.00		
							459.00	316.94	145475.46
34	KSRRB 13-9: Providing and fixing to wall ceiling and floor high density polyethylene pipes 6.00Kgf/sqm.cm working pressure of outside diameter raising mains & exposed distribution pipes with special flange, compression type fittings, wall clips, making good the wall, ceiling and floor, including cost of materials, labour charges, HOM and testing complete as per Specifications. Specification No. KBS 13.2.15.2/13.9, KSRB 13-9.4 : -do-63mm dia (Page no.94, Item No.13.73.2)	Rmt							
			1	840.00			840.00		
							840.00	394.32	331228.80

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
35	KSRRB M400- Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406	cum							
	For water Supply		1	840.00	0.60	0.15	75.60		
							75.60	2001.28	151296.77
36	Filling available earth around pipe lines cable in layers not exceeding 20cms, in depth compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost all labour complete as per specifications (Page No.6 Item No. 2.10)PW,P&IWTD SR 2018-19	Cum							
	Consider 85%of Qty vide No.33						459.00		
							459.00	213.06	97794.54
					Total construction cost				3916238.00
					GST 12%				469948.56
					DPR & PMC 2%				78324.76
					Tender premium 6%				234974.28
37	Miscellaneous charges and Electric deposite charges etc								300514.00
								Total	5000000.00
(Rupees Fifty lakhs Only)									

CERTIFICATE

1 The work spot has been inspected and the work is found necessary.
2 Certified that the estimate is prepared on the basis of CSR of PW,P & IWTD, Bangalore Circle, Bangalore for the
3 The provisions were made in this estimate are necessary and adequate.
4 This works come under B.B.M.P. limits.

Assistant Engineer

Executive Engineer
Yelahanka Division
Bangalore-64

Assistant Executive Engineer
Yelahanka Sub Division
Bangalore-64

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Estimate Cost Rs. 20000000.00

Name of Work: Detailed Estimate for the work of Improvements to balance road and drian at KHB colony and surrounding areas in kempegowda ward no -01 of yelahanka Sub division.

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	KSRRB M500-2. Cleaning the exisitng black topped surface with brooms, soft brushes and finally dusting with old gunny bags and /or compressed air to receive bituminous treatmenst including cost of all materials, labour, HOM of machinerels complete as per specifications MORTH specfications clause 501	Sqm							
	for road AB Shivakumar								
	1st cross road		1	50.00	8.00		400.00		
	2nd cross road		1	32.00	7.00		224.00		
	3rd cross road		1	35.00	7.40		259.00		
	prakash theater road		1	240.00	10.00		2400.00		
	KTM show room road		1	167.00	10.00		1670.00		
	Nehru Nagar		1	140.00	6.50		910.00		
							5863.00	5.30	31073.90
	Basic Rate	5.00							
	Area Weightage 6%	0.30							
	Grand Total	5.30							
2	KSRB 2-2.1 : Earthwork excavation by manual means for foundation of buildings, culverts, water supply and sanitary lines and electrical conduits etc, either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. including breaking of clods complete as per specifications. No. KBS 2.1 (a) I 2.3.5 page no 6	cum							
	for RCC drain								
	Ab shivakumar house road to NH - 7		1	220.00	1.00	1.00	220.00		
	1st cross road		2	50.00	1.00	1.00	100.00		
	2nd cross road		2	32.00	1.00	1.00	64.00		
	3rd cross road		2	35.00	1.00	1.00	70.00		
	prakash theater road		2	240.00	1.00	1.00	480.00		
	KTM show room road		2	167.00	1.00	1.00	334.00		
	Maruthi Nagar 24th to 26th Cross		1	125.00	1.00	1.00	125.00		
	for culverts								
	Ab shivakumar house road to NH - 7		1	7.50	1.65	1.20	14.85		
	1st cross road		1	8.00	1.65	1.20	15.84		

AARTH ASSOCIATES BANGALORE DATE

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
	2nd cross road		1	8.00	1.65	1.20	15.84		
	3rd cross road		1	8.00	1.65	1.20	15.84		
	prakash theater 1st cross		1	5.00	1.65	1.20	9.90		
	prakash theater 2nd cross		1	5.00	1.65	1.20	9.90		
	Maruthi Nagar 22nd Cross road		1	5.00	1.65	1.20	9.90		
	culverts		4	8.00	1.65	1.20	63.36		
							1548.43	**399.07**	**617931.96**
	Basic Rate	299.00							
	Area Weightage 6%	17.94							
	Grand Total	316.94							
	Loading and unloading + Basic Rate for Haulage upto 8.00 k.m =(1.28 X 2.50 X 8)+ 57	77.48							
	Area Weightage 6%	4.65							
		399.07							
3	KSRB 4-1.7 : **Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 20mm and down size graded granite metal coarse aggregates @0.69 cum** and fine aggregtes @ 0.56cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 Page No.13 Item No.4.7	cum							
	for RCC drain								
	Ab shivakumar house road to NH - 7		1	220.00	1.00	0.15	33.00		
	1st cross road		2	50.00	1.00	0.15	15.00		
	2nd cross road		2	32.00	1.00	0.15	9.60		
	3rd cross road		2	35.00	1.00	0.15	10.50		
	prakash theater road		2	240.00	1.00	0.15	72.00		
	KTM show room road		2	167.00	1.00	0.15	50.10		
	Maruthi Nagar 24th to 26th Cross		1	125.00	1.00	0.15	18.75		
	for culverts								
	Ab shivakumar house road to NH - 7		1	7.50	1.65	0.15	1.86		
	1st cross road		1	8.00	1.65	0.15	1.98		
	2nd cross road		1	8.00	1.65	0.15	1.98		
	3rd cross road		1	8.00	1.65	0.15	1.98		
	prakash theater 1st cross		1	5.00	1.65	0.15	1.24		
	prakash theater 2nd cross		1	5.00	1.65	0.15	1.24		
	Maruthi Nagar 22nd Cross road		1	5.00	1.65	0.15	1.24		
	culverts		4	8.00	1.65	0.15	7.92		
	PCC for Kerbs								
	KTM show room		1	167.00	0.17	0.10	2.76		
	Prakash theater road		2	240.00	0.17	0.10	7.92		
	Ab shivakumar house road to NH - 7		1	220.00	0.17	0.10	3.63		
	Nehru Nagar		2	140.00	0.17	0.10	4.62		
	Maruthi Nagar 24th to 26th Cross		2	125.00	0.17	0.10	4.13		

MARTHA ASSOCIATES BANGALORE

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
							251.43	5627.54	1414932.38
	Basic Rate	5309.00							
	Area Weightage 6%	318.54							
	Grand Total	5627.54							
4	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200, including cost of materials, labour, HOM complete as per specifications. Page No.270. Item No.37.59.1	cum							
	for RCC drain bed								
	Ab shivakumar house road to NH - 7		1	220.00	0.90	0.15	29.70		
	1st cross road		2	50.00	0.90	0.15	13.50		
	2nd cross road		2	32.00	0.90	0.15	8.64		
	3rd cross road		2	35.00	0.90	0.15	9.45		
	prakash theater road		2	240.00	0.90	0.15	64.80		
	KTM show room road		2	167.00	0.90	0.15	45.09		
	Maruthi Nagar 24th to 26th Cross		1	125.00	0.90	0.15	16.88		
	for culverts								
	Ab shivakumar house road to NH - 7		1	7.50	1.20	0.25	2.25		
	1st cross road		1	8.00	1.20	0.25	2.40		
	2nd cross road		1	8.00	1.20	0.25	2.40		
	3rd cross road		1	8.00	1.20	0.25	2.40		
	prakash theater 1st cross		1	5.00	1.20	0.25	1.50		
	prakash theater 2nd cross		1	5.00	1.20	0.25	1.50		
	Maruthi Nagar 22nd Cross road		1	5.00	1.20	0.25	1.50		
	for side walls								
	Ab shivakumar house road to NH - 7		2	220.00	0.15	0.75	49.50		
	1st cross road		4	50.00	0.15	0.75	22.50		
	2nd cross road		4	32.00	0.15	0.75	14.40		
	3rd cross road		4	35.00	0.15	0.75	15.75		
	prakash theater road		4	240.00	0.15	0.75	108.00		
	KTM show room road		4	167.00	0.15	0.75	75.15		
	Maruthi Nagar 24th to 26th Cross		2	125.00	0.15	0.75	28.13		
	for culverts								
	Ab shivakumar house road to NH - 7		2	7.50	0.23	0.90	3.11		
	1st cross road		2	8.00	0.23	0.90	3.31		
	2nd cross road		2	8.00	0.23	0.90	3.31		
	3rd cross road		2	8.00	0.23	0.90	3.31		
	prakash theater 1st cross		2	5.00	0.23	0.90	2.07		
	prakash theater 2nd cross		2	5.00	0.23	0.90	2.07		

AARIN ASSOCIATES BANGALORE

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
	Maruthi Nagar 22nd Cross road		2	5.00	0.23	0.90	2.07		
							534.68	**7273.72**	**3889112.61**
	Basic Rate	6862.00							
	Area Weightage 6%	411.72							
	Grand Total	7273.72							
5	KSRRB M 2200-6 **Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending,** hooking, placing in position, lapping and or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. MORTH Specification No 1600 & 2200 TMT Bars Fe 500 Page No 229 Item No 28.8.2 SR 2018-19	**Tn**							
	for RCC drain 60 kg/cum		0.060	**601.48**			30.09		
	for RCC culvert 90 kg/cum		0.090	**33.20**			2.99		
				534.68			**33.08**	**72326.98**	**2392576.50**
	Basic Rate	68233.00							
	Area Weightage 6%	4093.98							
	Grand Total	72326.98							
6	**Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and** Finishing cutting , including form work, cost of alll materials, labour,hire charges of chinery,loading ,unloading ,lead and lift, transportation etc ,coomplete (Data Rate)	**Sqm**							
	Ab shivakumar house road to NH - 7		1	220.00	0.90		198.00		
	1st cross road		2	50.00	0.90		90.00		
	2nd cross road		2	32.00	0.90		57.60		
	3rd cross road		2	35.00	0.90		63.00		
	prakash theater road		2	240.00	0.90		432.00		
	KTM show room road		2	167.00	0.90		300.60		
	Maruthi Nagar 24th to 26th Cross		1	57.00	0.90		51.30		
							1192.50	**2337.00**	**2786872.50**
	Date Rate	**2337.00**							

AARA ASSOCIATES BANGALORE DATA

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
7	**Providing and Fixing pre cast covering Slab 250mm thick made out of CC 1:2:4** and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge. (Data Rate)	Sqm							
	for culverts								
	Ab shivakumar house road to NH - 7		1	7.50	1.20		9.00		
	1st cross road		1	8.00	1.20		9.60		
	2nd cross road		1	8.00	1.20		9.60		
	3rd cross road		1	8.00	1.20		9.60		
	prakash theater 1st cross		1	5.00	1.20		6.00		
	prakash theater 2nd cross		1	5.00	1.20		6.00		
	Maruthi Nagar 22nd Cross road		1	5.00	1.20		6.00		
	culverts		4	8.00	1.20		38.40		
							94.20	**5418.00**	**510375.60**
	Date Rate	**5418.00**							
8	**Providing and fixing pre cast solid cement concrete kerb stones made out of C.C. 1:2:4 with top and bottom width 114 and** 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete. Page No.27. Item No.5.30	Nos							
	KTM show room		1	167.00			167.00		
	Prakash theater road		2	240.00			480.00		
	Ab shivakumar house road to NH - 7		1	220.00			220.00		
	Nehru Nagar		2	140.00			280.00		
	Maruthi Nagar 24th to 26th Cross		2	125.00			250.00		
							1397.00		
					0.45		3104.44		
							3104.44	**432.48**	**1342608.21**
	Basic Rate	408.00							
	Area Weightage 6%	24.48							
	Grand Total	432.48							
9	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 Page No.180. Item No.24.1	sqm							

AARTH ASSOCIATES BANGALORE DATE

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
	KTM show room road		1	167.00	0.45		75.15		
	Prakash theater road		2	240.00	0.45		216.00		
	Ab shivakumar house road to NH - 7		1	220.00	0.45		99.00		
	Nehru Nagar		2	140.00	0.45		126.00		
	Maruthi Nagar 24th to 26th Cross		2	125.00	0.45		112.50		
							628.65	**84.80**	**53309.52**
	Basic Rate	80.00							
	Area Weightage 6%	4.80							
	Grand Total	84.80							
	for Asphalt road								
13	**KSRRB M500-17. Providing and laying Dense Graded Bituminous Macadam using crushed aggregates of specified grading,** premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications. MORTH Specification No. 507. Using 100/120 TPH capacity HMP with sensor paver Gr-II (50 mm to 75mm) with 4.5% VG-30 Bitumen. Page No.160. Item No.21.17.2	Cum							
	DBM for camber corrections								
	1st cross road		1	50.00	8.00	0.05	20.00		
	2nd cross road		1	32.00	7.00	0.05	11.20		
	3rd cross road		1	35.00	7.40	0.05	12.95		
	prakash theater road		1	240.00	10.00	0.05	120.00		
	KTM show room road		1	148.00	10.00	0.05	74.00		
	Nehru Nagar		1	140.00	6.50	0.05	910.00		
							1148.15		
	Overlay 15%						**172.22**	**7620.34**	**1312374.95**
	Basic Rate	7189.00							
	Area Weightage 6%	431.34							
	Grand Total	7620.34							
14	KSRRB 500-7. **Providing and applying tack coat using 80/100 grade bitumen (VG10) on the** prepared black topped surfaces at 0.25 kg per sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5 Page No.158. Item No.21.7	Sqm							
	1st cross road		1	50.00	8.00		400.00		

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
	2nd cross road		1	32.00	7.00		224.00		
	3rd cross road		1	35.00	7.40		259.00		
	prakash theater road		1	240.00	10.00		2400.00		
	KTM show room road		1	167.00	10.00		1670.00		
	Nehru Nagar		1	140.00	6.50		910.00		
							5863.00	**12.72**	**74577.36**
	Basic Rate	12.00							
	Area Weightage 6%	0.72							
	Grand Total	12.72							
15	Providing **and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with** bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP- 53-2015.do- using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4% of modified bituminous binder consisting of 4.97% ofVG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) Page No. 171. Item No.21.78.12	Cum							
	1st cross road		1	50.00	8.00	0.04	16.00		
	2nd cross road		1	32.00	7.00	0.04	8.96		
	3rd cross road		1	35.00	7.40	0.04	10.36		
	prakash theater road		1	240.00	10.00	0.04	96.00		
	KTM show room road		1	167.00	10.00	0.04	66.80		
	Nehru Nagar		1	140.00	6.50	0.04	36.40		
							234.52	**8699.42**	**2040187.98**
	Basic Rate	8207.00							
	Area Weightage 6%	492.42							
	Grand Total	8699.42							
16	**Providing and fixing of retro - reflectorised cautionary, mandatory and informatory sign as per IRC:67 made of high intensity grade sheeting vide Clause** 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing Page No.180. Item No.24.2	Nos							
	1st cross road		1	12.00			12.00		

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
	2nd cross road		1	16.00			16.00		
	3rd cross road		1	15.00			15.00		
	prakash theater road		1	120.00			120.00		
	KTM show room road		1	83.50			83.50		
							246.50	**137.80**	**33967.70**
	Basic Rate	130.00							
	Area Weightage 6%	7.80							
	Grand Total	137.80							
17	**KSRRB M800-4. Direction and Place Identification Signs / Project Information Board with size more than 0.9 sqm Size Board:-Providing** and erecting direction and place identification retro- reflectorised sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm , 2 Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing. Page No.180. Item No.24.4	Nos							
			4	1.00			4.00		
							4.00	**7567.34**	**30269.36**
	Basic Rate	7139.00							
	Area Weightage 6%	428.34							

AARM ASSOCIATES BANGALORE

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
	Grand Total	7567.34							
18	**KSRRB M800-13. Road Marking with Hot Applied 'Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:-** Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 Page No.182. Item No.24.15	Sqm							
	1st cross road		1	28.00	0.10		2.80		
			2	50.00	0.15		15.00		
	2nd cross road		1	22.00	0.10		2.20		
			2	32.00	0.15		9.60		
	3rd cross road		1	23.00	0.10		2.30		
			2	35.00	0.15		10.50		
	prakash theater road		1	160.00	0.10		16.00		
			2	240.00	0.15		72.00		
	KTM show room road		1	98.00	0.10		9.80		
			2	167.00	0.15		50.10		
							190.30	**454.74**	**86537.02**
	Basic Rate	429.00							
	Area Weightage 6%	25.74							
	Grand Total	454.74							
20	for Rain water harvesting work including 40mm jelly, 20mm jelly coarse sand, fine sand, 12.50 mm chips as per data rates	Nos	2				2	20882.00	41764.00
							Total construction cost		**16658471.56**
							GST 12%		**1999016.59**
							DPR & PMC 2%		**333169.43**
							Tender Premium 6%		**999508.29**
									9834.13
21	Miscellaneous charges							**Total**	**20000000.00**

(Rupees Two Crore Only)

CERTIFICATE

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per C.S.R. of 2018-19
3 The provisions were made in this estimate are necessary and adequate.
4 This works come under B.B.M.P. limits.

Assistant Engineer

Executive Engineer
Yelahanka Division
Bangalore-64

Assistant Executive Engineer
Yelahanka Sub Division
Bangalore-64

AARIN ASSOCIATES BANGALORE